

## QUANTUM RESOURCES LIMITED

(ASX: QUR)

### ASX and Media Release

4 April 2017

## Exploration Update – Extensive Zones of Spodumene Mineralisation Confirmed at Thompson Bros Lithium Project

Quantum Resources Limited (ASX: “QUR” or “the Company”) is pleased to provide the following Exploration Update in relation to its Thompson Bros Lithium Project (“the Project”) in Manitoba, Canada.

### Highlights:

- First four drill holes completed with extensive zones of spodumene (lithium ore) mineralisation visually identified
- TBL17-001: 35 – 47m (12 metre) interval of spodumene mineralisation (*note: downhole width, true width not yet determined*)
- TBL17-002: Two intervals, 8 – 9 m and 19 – 25 m (1 & 6 metre) interval of spodumene mineralisation (*note: downhole widths, true widths not yet determined*)
- TBL17-003: Two intervals, 160 – 182 m (22 metre) and 210 – 213 m (3 metre) interval of spodumene mineralisation (*note: downhole widths, true widths not yet determined*)
- TBL17-004: 33 – 54 m (21 metres) interval of spodumene mineralization (*note: downhole widths, true widths not yet determined*)
- TBL17-005: 140 – 146 m (6 metres) interval of spodumene mineralization (*note: downhole widths, true widths not yet determined*)
- Early results support historical data very well

The first six drill holes have now been completed at the Thompson Bros Lithium Project in Manitoba. Five of the holes have encountered significant intervals of spodumene (lithium bearing ore) mineralisation at downhole widths that are in line with or exceed those encountered from historical drill programs.

**Hole One TBL17-001: 35 – 47 m (12 metre interval – note: downhole widths, true widths not yet determined)**

Near historic hole 102 (hole ended in pegmatite due to unstable conditions)

Historic hole 102 intersected pegmatite from 52.4 to 59.4 metres (7.0m interval)

**Hole Two TBL17-002: 8 – 9 m and 19 – 25 m (two intervals, 1m & 6m – note: downhole widths, true widths not yet determined)**

Near historic hole 111

Historic hole 111 encountered two intervals also: 20.9 to 24.5 metres (3.6m interval) & 55.5 to 57.3 metres (1.8m interval)



**Fig 1: Spodumene Mineralisation in drill core of hole TBL-001 at Thompson Bros Lithium Project**

**Hole Three TBL17-003: 160 – 182 m and 210 – 213 m (two intervals, 22m & 3m – note: downhole widths, true widths not yet determined)**

Near historic hole 124

Historic hole 124 intersected pegmatite from 163.5 to 185.6 metres (22.1m interval)

***Hole Four TBL17-004: 33 – 54 m (21 metre interval – note: downhole widths, true widths not yet determined)***

Near historic hole 101

Historic hole 101 intersected pegmatite from 58.2 to 69.3 metres (11.1m interval)

**Hole Five TBL17-005: 140 – 146 m (6 metre interval - note: downhole widths, true widths not yet determined)**

Near CAR-97-1

Historic hole CAR-97-1 intersected pegmatite from 161 to 191 m (30 m interval). The historic hole was drilled at an oblique angle to the strike of the pegmatite, therefore the current hole is closer to the true width of the pegmatite at this location.

**Hole Six TBL17-006: No spodumene pegmatite intersected**

The final hole of the season did not reach the target depth before the drill rig needed to be moved off of the project area due to the rapidly warming conditions. The drill collar has been left in place in order to continue drilling in the next phase of drilling.

## **2017 Drill Program background**

Drill targets were selected using historic drill hole information. The Company prepared a sequence of drill holes along a series of section lines to intersect the pegmatite at varying depths along the strike length. Drill holes will step out 100 metres apart along section lines spaced 100 metres apart running northwest-southeast. Drill holes will be systematically geologically and geotechnically logged and assayed. Final data compilation, database creation, geological interpretation, and resource modelling will be completed in accordance with JORC regulations.



## Winter Thaw & Ongoing Work Programs

Rapidly warming conditions have led to an earlier than expected winter thaw and forecast conditions indicate a limited window before conditions deteriorate to unsafe levels. The Company has made the decision to discontinue the current program by the end of the week while conditions hold. Preparations are now being made to demobilise the drill following the final drill holes.

Whilst the Company prepares to recommence drilling for summer conditions, it is expected that further exploration results on the five holes will be reported in the coming weeks.

It is anticipated that drilling will re-commence at the end of May. The Company will be able to continue drilling the prospect in a cost-effective manner in the summer months without the use of continued helicopter support. The target area is accessible in the summer months due to its location near the shore of Wekusko Lake. In addition, the Company is initiating plans for a work program to test for additional pegmatites with a focus on the Thompson #5 and Sherritt-Gordon Zones which could lead to significantly larger overall tonnages. This program is scheduled to commence as soon as residual snow cover is gone.

QUR Managing Director, Mr. Avi Kimelman states:

*"We are very excited with the progress and visual results of the drill core to date. The early drilling has confirmed the presence of extensive zones of lithium bearing ore at Thompson Bros. Importantly, the results we have seen so far match up with, and have the potential to exceed the historic data which builds around the historical resource numbers. The results gained so far are a tribute to the hard work of our technical team and skill of our experienced team of operators. We are excited by the results seen so far and look forward to recommencing drilling in the short term, in addition to a ground program to search for additional pegmatites to commence as soon as snow cover is gone."*

For and on behalf of the Board



Avi Kimelman  
Director

About Quantum Resources Limited (ASX: "QUR" or the "Company"):

QUR own the rights to back in to earn up to 95% ownership interest of the Thompson Bros. Lithium Project from Ashburton Ventures Inc. by financing their commitments relating to their Option Agreement with Strider Resources Ltd.

The Thompson Bros. Lithium Project, located in Manitoba, Canada contains a historical **(NON-JORC COMPLIANT)** resource estimate of 4,305,000 tonnes of 1.3% Li<sub>2</sub>O, open at depth and along strike. These estimates are historical estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the historical estimates as mineral resources and/or reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code.

**Competent Person Statement**

The geologic information in this report is based on and fairly represents information compiled by Ms. Janine Brown (P.Geo), who is employed as a Consultant to the Company through Dahrouge Geological. Ms. Brown is a Registered Member of the Association of Professional Engineers and Geoscientists of Alberta, and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The information in this market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the Property. Ms. Brown consents to the inclusion in the report of matters based on information in the form and context in which it appears.

## Appendix 2: Thompson Bros. Property, Manitoba, Canada

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling technique</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</li> <li>Aspects of the determination of mineralisation that are material to the Public report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Samples will be collected from split NQ-sized drill core.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method etc.).</li> </ul>	<ul style="list-style-type: none"> <li>The current drilling is standard NQ-sized core.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed</li> <li>Measurements taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>NQ-sized core recovery is very good.</li> </ul>

	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.</li> <li>• The total length and percentage of the relevant intersections logged</li> </ul>	<ul style="list-style-type: none"> <li>• All core will be Geologically logged in detail, with basic geotechnical logging.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>• For all sample types, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill core will be cut in half, with half retained in the core box for record. The other half will be placed in individual bags and sent to an analytical lab to be crushed and pulverized.</li> <li>• Occasional QAQC samples will utilize quartered core as field duplicate samples.</li> <li>• Sample lengths will be approximately 1 metre.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• The samples have not yet been tested at an analytical laboratory.</li> <li>• Standards, blanks and duplicates will be inserted at a rate of 5%.</li> </ul>



	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>External laboratory checks will be instrumented at a rate of 5%</b></li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Drill collar locations are initially placed using handheld GPS (Garman GPS 62 and 64 series, using both GPS and Glonass satellites) system with expected accuracy of +/- 5m horizontal.</b></li> <li>• <b>The grid system for Thompson Bros. Project is UTM NAD83 Zone 14 U</b></li> <li>• <b>Topographic control is based on the recorded GPS Elevation.</b></li> <li>• <b>At the end of the project, the drill collars will be surveyed with a high-precision GPS.</b></li> <li>• <b>The holes are surveyed with a Reflex EZ-TRAC downhole tool.</b></li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling is on-going.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Historic drilling was oriented to intersect the target pegmatite as closely to perpendicular as could be achieved.</b></li> <li>• <b>The current drilling will also be perpendicular to the pegmatite.</b></li> </ul>

	JORC Code explanation	Commentary
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples are being collected and sealed in sample bags, combined into 5 gallon plastic pails by the field crew. They will be transported by the crew to a courier to send directly to the lab.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of and audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No independent audits or reviews have been undertaken.</li> </ul>

## Section2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenements and land tenure status</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The tenure is secure and in good standing at the time of writing. There are no known impediments to permitting, or licencing to explore or mine in the area.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgement and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historic exploration carried out by several parties on the Property has been summarized in and Independent Technical Report for Rodinia Minerals Inc. dated 2009-07-13.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological settings and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Spodumene-bearing albite-quartz-muscovite pegmatites intruding greenschist facies metasediments.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li><i>A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>Easting and northing of the drill hole collar</i></li> <li><i>Elevation or RL (Reduced level-elevation above sea level in metres)and the drill hole collar</i></li> <li><i>Dip and azimuth of the hole</i></li> <li><i>Down hole length and interception depth</i></li> <li><i>Hole length</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Summary of drill information presented in Appendix 3.</li> <li>Easting, northing and RL subject to update with the higher precision GPS survey.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No composites were made.</li> <li>Historic Lithium content expressed is as Li<sub>2</sub>O Determined by multiplying Li content as weight percentage by 2.153.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known')</li> </ul>	<ul style="list-style-type: none"> <li>The mineralized pegmatite intersected by historic drilling trends at approximately 030° and dips steeply to the southeast.</li> <li>Historic and current drilling reported apparent thicknesses of mineralization.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate plan maps of sample locations have been included in the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, will be done when analytical results are received.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations, geophysical survey results, geochemical survey results, bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or containing substances.</li> </ul>	
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling will continue as long as weather permits to follow-up historic work.</li> <li>See figure in the text of report for map of historic drilling and trend.</li> </ul>

**APPENDIX 3**  
**Current Drilling**

<b>Drillhole</b>	<b>Easting</b>	<b>Northing</b>	<b>Dip</b>	<b>Azimuth</b>	<b>Depth (m)</b>	<b>Elevation (m)</b>
TBL17-001	454267	6078491	-45	300	150.88	320
TBL17-002	454133	6078839	-45	300	151	269
TBL17-003	454306	6078374	-45	300	224.03	272
TBL17-004	454217	6078412	-45	300	105.77	270